On positive definiteness over locally compact quantum groups
Volker Runde and Ami Viselter

Abstract. The notion of positive-definite functions over locally compact quantum groups was recently introduced and studied by Daws and Salmi. Based on this work, we generalize various well-known results about positive-definite functions over groups to the quantum framework. Among these are theorems on “square roots” of positive-definite functions, comparison of various topologies, positive-definite measures and characterizations of amenability, and the separation property with respect to compact quantum subgroups.